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Standardized Patients' Unscripted Techniques for Training
Medical Students.**

KOSKI, Kaisu and OTHERR, Kirsten

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Citation:

KOSKI, Kaisu and OTHERR, Kirsten (2020). "I Guess I Didn't Like That Word Unfortunately": Standardized Patients' Unscripted Techniques for Training Medical Students. *Simulation in Healthcare, Publis.* [Article]

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Title:

“I guess I didn’t like that word *unfortunately*”: Standardized patients’ performative technique of “Repair Request” with medical trainees

Authors: Kaisu Koski¹, Kirsten Ostherr²

Institutions:

1. Tampere University, Faculty of Information Technology and Communication Sciences

2. Rice University

Kaisu Koski (corresponding author)

Centre for Practice as Research in Theatre

Tampere University

Faculty of Information Technology and Communication Sciences

Kalevantie 4, 33140 Tampere, Finland

kaisu.koski@tuni.fi

+358 50 318 7664

www.kaisukoski.com

Abstract

Introduction: This article focuses on standardized patients' (SP) performance in a context of breaking bad news education. It explores a performative technique in which the SP explicitly repeats one or more of the medical student's words, and analyzes the function and impact of this technique.

Methods: The study employs Conversation Analysis to examine pedagogical strategies embedded in the SPs verbal performance. It explores so-called echo utterances, through which the SP repeats all or part of what the student has said. In doing so the study utilizes the concept of repair in analyzing the SPs echo utterances, observing especially situations in which the SP initiates a request for the student to repair their utterance.

Results: SPs use the technique of "Repair Request" to increase the students' awareness of their verbal communication and thus allow the student to rehearse their communication skills by re-formulating their utterances in character. Most of the repair procedures were initiated when the SP portrayed an angry patient. These Repair Requests include the patient's disbelief, or nonalignment with the physician, such as being offended by the physician claiming to know how they feel.

Conclusions: The technique of Repair Request is intended to heighten the student's language sensitivity, including the timing of presenting information. The technique resembles authentic medical practice in that it mirrors the need for physicians to be able to solve criticism or misunderstanding in-character. The technique could be rehearsed and used consciously in other simulation scenarios as well.

1. Introduction

Standardized patients (SPs) are individuals who have been carefully recruited and trained to simulate the role of a patient in various clinical scenarios for educational purposes. Standardized patients work, for instance, with medical students to help them practice their clinical and interpersonal skills in preparation for their medical licensing exams. Due to their role in high-stakes assessments of medical student competencies, SPs are required to ensure the “standard” of a consistent patient portrayal, thus providing each student an equal learning and evaluation opportunity. At the same time, SPs must convincingly simulate authentic patient behavior and react spontaneously to what the student says or does, or doesn’t say or do. Therefore, standardized patients’ work inherently involves a tension between standardization and authenticity. The balance between standardization and authenticity is particularly delicate in the learning context of “breaking bad news,” in which the students learn to deliver unfavorable medical information to a patient. Ideally such an encounter is deeply human, authentic, and empathic, yet the interaction is also a highly structured simulation governed by clinical protocols and checklists. While the Breaking Bad News (BBN) scenario has a script that guides the SP performance in many ways, their performance includes improvisatory dimensions, which are not requested by the faculty, or documented or studied in detail. Some of these improvisational methods have, in time, established themselves as what could be seen as educational techniques developed by the SPs. This article advances a view in which standardized patients are seen as educators controlling their own technology and methodology¹. Our work aims to fill gaps in research on tacit techniques SPs have established through years of practice and “peer-reviewing” each other’s performance. Many of these techniques are currently lost when the SP retires. This article focuses on one such technique, by which the SP explicitly repeats one or more of the student’s words. It analyzes the different reasons for, and impact of this educational intervention; in this view the exploration of the types

of utterances that trigger the SP's speech repetition unveils some of the students' challenges and pitfalls in presenting bad news to patients.

While aspects of the SP work has previously been discussed in terms of dramatic arts², their performance is typically studied in terms of its accuracy and consistency³, and, simultaneously, criticized for being inflexible and inauthentic. Thus their improvisational capacities are either being disciplined as flaws, or considered of a lesser "standard" than theatre actors' improvisation skills⁴. Furthermore, SPs are often objectified; they are called "tools" that are being "used"⁵ and their training may involve mechanizing components such as learning an "angry-algorithm"⁶ and ANGER acronym to trigger the bad mood⁷. While SPs' educational capacities are increasingly acknowledged, this often concerns their ability to give feedback *after* coming out of their role⁸, instead of during their role portrayal. Even though there exist educational methods that generate feedback before the simulation encounter is over, for instance, a "time-in, time-out", these often involve *instructors* deciding whether the student should "re-do" certain parts of the dialogue⁹, instead of exploring the ways SPs elicit "re-doing" in-character during the dialogue. In contrast, this article focuses on an improvisational technique through which SPs give feedback to the student on the fly, *in-character*, performing reflection-in-action¹⁰.

A "breaking bad news" encounter is particularly charged with words that may mean different things to the physician and the patient. A common example of such a multi-meaning word is "tumor." While by tumor a doctor typically refers to either a benign or malign neoplasm, many patients associate the word's meaning with cancer and death¹¹. This paper focuses on situations in which the SPs use representation of the student's 'original' speech, by repeating what could be called "trigger words," which sound alarming, unclear or inappropriate to them,

or that the students use too casually. The SPs thus perform *echo utterances*, meaning that their wording repeats all or part of what the previous speaker has said¹². Although echo utterances can be utilized as a conscious educational technique, they emerge as part of the improvisational dimension of the SP work. Echo utterances may have many benefits in developing students' awareness of their vocabulary and presentation. For instance, the technique helps the student to realize how (differently) the SP perceived what they've just said, and do a spontaneous rerun to rectify the situation. The student is thus allowed to hear an echo of himself or herself, as the SP partly or wholly mirrors the student's utterance.

2. Method

This film-based ethnographic inquiry has two parallel tracks: 1. To explore SPs' performative techniques in portraying a BBN scenario, and 2. To create a film that translates these techniques to be employed in SP training and complementing BBN classes in medical education¹³. This paper focuses on the first strand, especially on the technique, meaning and function of the SP's echoed utterances.

The data consists of three 90-minute sessions of a breaking bad news class given in the University of Texas to third year medical students. It includes nine student encounters (female=4, male=5) with two female SPs who have specialized in the BBN scenario for many years, as well as the tutor and peer feedback in-between each student encounter. The original BBN scenario has been adapted from the 1996 Southern California Macy Consortium. This class is part of the third year clerkship in the Internal Medicine Department, generally having about 240 students per year go through this exercise. In each session, three students volunteer one at a time to participate in an SP encounter lasting approximately 12 minutes in front of a

large classroom. These sessions have been video recorded and verbatim transcribed. The authors have recorded two of these sessions with two cameras in 2016; one of the recordings was done by the faculty a few years earlier and made available to the authors. In addition, the authors have witnessed several BBN sessions in preparation for the study. In all these sessions, the same two SPs, as requested by faculty, exhibit three main personality types or moods; sad, angry, and unfocused, and they are instructed not be too “easy on the student.” The analysis of these three distinct characters and their function will be presented in another paper.

The study employs Conversation Analysis (CA) to examine educational strategies embedded in the SPs’ verbal performance. Conversation analysis is an approach to the study of practices of speaking in a variety of contexts and settings. It has been previously applied to physician-patient interaction, and its potential has been recognized in medical education studies¹⁴. However, to our knowledge, CA has not been utilized to study SP work, or the breaking bad news simulation in particular. The analysis typically begins with an observation of something in the recorded data: in this study, the analysis begins with the SPs’ repetition of the students’ words in the breaking bad news conversation. Originating from research in conversation analysis, this study utilizes the concept of *repair* in analyzing the SPs’ echo utterances. In CA the repair practices undertake trouble in speaking, hearing, or understanding¹⁵. Hoey and Kendrick¹⁶ identify three basic components in a repair procedure: trouble source (e.g., an unfamiliar word), repair initiation (i.e., a signal that begins a repair procedure), and repair solution (e.g., a rephrasing of the unfamiliar word). Either the speaker of the trouble source or its recipient can initiate a repair procedure and/or produce a repair solution, thus the repair can be either self-initiated or other-initiated¹⁶. Repetition is one of the ways for the initiation of repair¹⁷. Observation in this study is directed at *other-initiated self-repair*: the student’s

utterance is the trouble source for the SP, instead of the student self. The SP subsequently, often by repeating the student partially or wholly, requires the student to re-formulate, thus repair, their previous utterance. In computer terms, the SPs here conduct performative “speech-mining” and a form of “undoing” the student’s previous utterance. This allows the student to reconsider and reframe what they just said, thus taking a step back while staying in character. This may be a repetition of an entire sentence, or a selected key word that has triggered the SP either as inappropriate, alarming, vague or including medical jargon. The repetition may concern a sentence with or without a question, and repeat the whole question or only part of it. The SP may also initiate the repair by asking another question, which includes the trigger word: “What do you mean by biopsy”? Such questions differ from questions the SPs ask unrelated to the student’s vocabulary, such as: “Am I going to die?” Three aspects of the data will be addressed: 1. the frequency of repair initiation by the SPs; 2. the types and functions of their repair initiation; and 3. the methods that students use to self-repair their utterances.

3. Results

SPs use *other-initiated self-repair* or the technique of “Repair Request” to increase the students’ awareness of their verbal communication, and allow the students to rehearse their communication skills by re-formulating their utterances in character. Aspects especially addressed by the SPs’ Repair Requests are students’ used vocabulary and grammatical nuances, such as speaking in conditional, and the usage of certain key words and terms. Repair Request also points at the importance of the temporal dimension of the BBN encounter, in terms of proceeding too slow or too fast regarding the patient’s behavior.

In the nine student encounters the SPs initiated 36 repair procedures in the student's speech. 20 of these instances were signaled by repeating one or more of the student's words. Most of the repair procedures (n=29) were initiated in an angry character. The trigger utterances for repair initiation include words such as unfortunately, might, suspicious, concern, large, cancer, sooner and detail. SPs integrate these words in their dialogue, for instance, by saying "what do you mean *might*?" or "Sooner sooner, 1 week, 2 weeks, 3 weeks: I mean what is sooner to you?" The repair initiation in this data emerges from the performance of the angry patient in particular.

Correcting inappropriate utterances

Physicians typically solicit patients' presenting concerns with questions such as "What can I do for you today"¹⁸. In the context of breaking bad news, some of such solicitations derive from the SPIKES protocol, a six-step protocol developed for disclosing unfavorable medical information¹⁹. The protocol, for instance, guides the student to "ask before you tell", meaning that they should solicit information of what the patient knows of the purpose of the encounter. Although the SPIKES is not taught in the McGovern medical school as such, some students have either learned it elsewhere or studied it independently, and explicitly refer to it in the breaking bad news encounter debriefing. The instances described in this study unveil challenges related to physician solicitations, and SPs typically consider these inappropriate, responding with irony or sarcasm. They also openly criticize the SPIKES protocol in their feedback. In these situations, the repair initiation is a vehicle for displaying a stance of disbelief or nonalignment with the physician¹⁷: "*Say it again, what did you just say?*" In fact, as relative outsiders to the medical system, SPs may have an important role in questioning some of the accepted educational protocols from the patient's point of view: studies using medical trainees

193 as simulated patients, in comparison, note a lack of criticism about medical jargon and
 194 acronyms²⁰.

195

196 *Doctor: So, what's your understanding of what's going on?*

197 *Patient: My understanding of what's going on? My understanding is that y'all are*
 198 *putting me through hell to, because they saw something on my x-ray.*

199 *[...]*

200 *Doctor: How do you want me to tell you about this?*

201 *Patient: Well, I want you to say it with your mouth.*

202 *Doctor: Do you want me just to tell you directly?*

203 *Patient: Well what are you going to do?*

204 *Doctor: Okay, all right some people have different preference about who they*
 205 *want us to tell.*

206 *Patient: No, that's not me, I'm an adult and I may not have acted like one today*
 207 *but I am.*

208 *Doctor: It's okay, so, your CT shows changes that are consistent with lung*
 209 *cancer.*

210

211 Another genre of perceived inappropriate utterances concerns the student claiming to know
 212 how the SP feels after hearing the bad news, or guessing out loud how the patient may feel.
 213 Four of the nine encounters involved a situation in which the SP corrected the student who
 214 was claiming to understand what the patient's experience was like. SPs seem to react to this
 215 quite sensitively, for instance, in the sequence below, while the student does not literally claim
 216 to know what the patient feels, the SP reacts to the student's attempt to label the patients
 217 feelings.

218

219 *Doctor: So does that kind of make you a little more fearful?*

220 *Patient: What do you think? How would you feel if somebody was sticking a*
221 *needle in your lung?*

222 *Doctor: I can understand you must have a lot of fears and a lot questions*
223 *about what is going to happen.*

224 *Patient: How do you know what I feel really except that I'm angry and I'm*
225 *unhappy and I wish my own doctor were here and I don't know how*
226 *the hell I'm going to pay for this biopsy. I came down here to pick up a*
227 *piece of paper and I'm getting this conversation. So pardon me if you*
228 *can't understand how I feel but I don't really know how I feel.*

229

230 *Ambiguous words and medical jargon*

231 The following dialogue demonstrates to the student how the patient equates the word
232 unfortunate with something bad. She requests the student to repair.

233

234 *Doctor: Unfortunately we found some findings [...] We sort of need more testing*
235 *to figure out exactly what's going on.*

236 *Patient: I guess I didn't like that word unfortunately. [...] I guess I don't*
237 *understand what you are trying to tell me.*

238 *Doctor: Okay, so the reason I say unfortunately is because unfortunately it's not*
239 *just something wrong with the imaging that we suspected it to be. It*
240 *doesn't necessarily mean that this is a bad thing we are not quite sure*
241 *what it is.*

242 *Patient: Oh! So it's not bad oh! Thank God. I was thinking it's something bad.*

Next sequence is related to the SPIKES protocol and the student's excessive question asking before telling the patient anything. The SP repeats the words to the student requesting them to go to the point quicker.

Doctor: Okay, do you have any suspicions or concerns with things we are looking at your lungs?

Patient: Well I'm starting to get suspicious and concerned now about what you are telling me, why don't you tell me what it is that you saw?

Doctor: So, I'm afraid we found a mass in your right lung, it's a bit large. [...] The radiologist believes that its primary lung cancer. Would you like to know more details about the report on what was found?

Patient: Oh! At some point I'm sure I will, right now I'm just concerned about the word large and the word cancer.

In both these encounters the student repair fails in that their repair introduces yet another trouble the SP initiates a repair for. The first repair initiation implies that the student goes on for too long to warn that there is bad news coming. The second repair, on the other hand, refers to a pause the patient may need when word combinations such as cancer and large are being introduced. Thus, both of these repair initiatives relate to the rhythm of the dialogue: first, the student is, according to the SP, taking too long to get into the point, and then, proceeding too quickly, though asking about it, after labeling the findings. The repair initiation can thus request a leap backwards or forwards in the encounter, though as a technique it always requires the student to undo the previous utterance. Another learning curve relates to the combination and connotations of certain words, and how the patient may hear selectively only a few words of the sentence.

268 *Doctor: Okay, all right, so, we found some evidence, potential evidence of*
 269 *some early metastasis to the mediastinum. We're going to...*

270 *Patient: To the what?*

271
 272 A variation of Repair Request originates from the rhythmic mismatch between the student and
 273 the SP: the student has already proceeded to explain further tests required, while the patient
 274 is still waiting to hear what the imaging showed. This situation's core trouble is not necessarily
 275 the usage of ambiguous words but an absence of necessary words.

276
 277 *Doctor: It is recommended that we do a biopsy.*
 278 *Patient: Would you just be a little honest and tell me what you think that this is?*
 279 *Doctor: Look right now without the...*
 280 *Patient: I feel like you just have some kind of information that information that*
 281 *you don't want me to see. I'm getting this feeling from you and I just kind*
 282 *of don't understand what you are telling me.*

283
 284 **4. Discussion**
 285 This study discusses a performative technique termed Repair Request that emerges from the
 286 SPs' work in the breaking bad news scenario. The technique has been developed
 287 collaboratively with several SPs involved with BBN simulation in the McGovern Medical
 288 School, as they watch and provide feedback on each other's performance throughout the
 289 years. Though concentrating on used vocabulary and other aspects in the student's speech,
 290 the purpose of this technique is not to arrive at a list of forbidden words, but to generally
 291 heighten the student's language sensitivity, including the timing of presenting information. For
 292 instance, SPs use the technique both to indicate when the student appears to be avoiding

using a particular term, or using it too lightly, and when they should moderate the pace of the conversation according to the patient's needs.

It's been noted that SPs are more conversationally dominant than actual patients would be²¹. However, in many ways the SPs' technique represents an aspect of authentic clinical conversation: actual patients are also sensitive to the physician's communication, and patients do, for instance, "correct" their physician when experiencing solicitations inappropriate for their concerns¹⁸. Furthermore, the technique resembles authentic medical practice in that, in real life too, the physician needs to be able to solve any criticism or misunderstanding in-character. This study proposes that authenticity means portraying the potential in patient encounters, thinking that similar "dominant" behavior, such as critical questions, of the SP may be held as *internal* dialogue by most patients. This does not mean the questions are not there or may not arise later at home. In fact, many patients may not dare to confront their physicians. SPs thus have an indirect patient advocate function here: to speak for all those patients who may have similar questions and feelings without being able to voice them for one reason or another. Seen from another perspective, "echo" has a metaphorical meaning as well: as the SPs not only react to students' actual utterances but also to lack thereof, particular kinds of Repair Requests demand the student to fill the void of an perceived hollowness in their narrative.

The purpose of this study was not to assess how realistic the SP's performance was, considering that their sometimes-exaggerated behavior has important educational functions. One of these may be integration and utilization of "failure" as a pedagogical technique. Simulation may provide a unique space to expose and explore pitfalls in the student's communication in a relatively safe manner: in teaching hospitals, for instance, the preceptors typically avoid exposing the interns' errors, and there is a 'preference' for the speakers to

correct themselves²². For instance, because the SP character is eccentric, and the situation is knowingly a simulation, she may have freedom to say things that would be humiliating if spoken by a teacher or a peer. This raises complex questions about power-relations and disciplining in medical education. For instance, portraying the angry character includes particular risks: one of the SPs interviewed for this study withdrew from performing the bad news scenario after her angry character had made a student feel “crushed”. Apart from this case, however, integration of failure (and resolution) in-character has the potential to increase students’ confidence in being able to think on their feet, for instance. The results of this study may inform the SP training as well: the technique could be rehearsed and used consciously in other scenarios. Furthermore, aspects of the SP performance may provide meaningful training materials for patient organizations, in terms of how (not) to prepare for a consultation, for instance.

This study has identified the performative technique of Repair Request that the SPs use to heighten the students’ language sensitivity, including the timing of presenting information. The technique resembles authentic medical practice in that it mirrors the need for physicians to be able to solve criticism or misunderstanding in-character, and it could be rehearsed and used consciously in other simulation scenarios as well. In performing the Repair Request technique, standardized patients are like flesh and blood mirrors, sometimes reflecting the student’s speech sharply, sometimes in a distorted (sarcastic) manner, but always with a purpose of allowing them to repeat and repair aspects of their communication in character. The study invites further research on tacit knowledge and pedagogical techniques embedded in SP work, to understand their capacity as reflective practitioners more fully. By knowing more of the improvisatory dimension of their performance, we learn about what kind of image of the doctor and the patient is embedded in educational simulations.

References

1. McNaughton, NL, Hodges, B: Simulated patient methodology and the discourses of health professional education, *Simulated patient methodology: Theory, evidence and practice*. Edited by Nestel D, Bearman M. West Sussex, John Wiley & Sons, 2014, pp 53-60.
2. Smith CM, Edlington TL., Lawton R., Nestel D: The dramatic arts and simulated patient methodology, *Simulated patient methodology: Theory, evidence and practice*. Edited by Nestel D, Bearman M. West Sussex, John Wiley & Sons, 2014, pp 39-45.
3. Erby LAH, Roter DL, Biesecker BB: Examination of standardized patient performance: Accuracy and consistency of six standardized patients over time. *Patient Education and Counseling* 2011; 85(2):194-200.
4. Eisenberg A, Rosenthal S, Schluskel YR: Medicine as a Performing Art: What We Can Learn About Empathic Communication From Theater Arts. *Acad Med* 2015; 90(3):272-276.
5. McNaughton N, Anderson M: Standardized Patients: It's All in the Words. *Clinical Simulation In Nursing* 2017; 13(7):293-294.
6. Kusnoor A, Gill AC, Hatfield CL, PharmD, Ordonez N, PharmD, Stritto RD, Landrum P, Teal CR, Ismail N: An interprofessional standardized patient case for improving collaboration, shared accountability, and respect in team-based family discussions. *MedEdPORTAL* 2019;15:10791.

- 368
- 369 7. Liao CS, Hsieh MC: Standardized Patient Training: Using ANGER to quickly evoke
- 370 anger in standardized patients. *Med Teach* 2015; 37(9):883-883.
- 371
- 372 8. Weaver M, Erby L: Standardized Patients: A Promising Tool for Health Education and
- 373 Health Promotion. *Health Promot Pract* 2012;13(2):169-174.
- 374
- 375 9. Barrows HS: An overview of the uses of standardized patients for
- 376 teaching and evaluating clinical skills. *Acad Med* 1993;68(6):443-453.
- 377
- 378 10. Schön DA: *The reflective practitioner: How professionals think in action*. New York,
- 379 Basic Books, 1983.
- 380
- 381 11. Nessa J: From a medical consultation to a written text. 1. Transcribing the doctor-
- 382 patient dialogue. *Scand J Prim Health Care* 1995;13:83-8.
- 383
- 384 12. Aarts B, Chalker S, Weiner E: *The Oxford Dictionary of English Grammar*, 2nd edition.
- 385 Oxford University Press, 2014.
- 386
- 387 13. Koski K, Ostherr, K. *Scenes of Disclosure*. Film 2017. Trailer available at:
- 388 <https://vimeo.com/227863178/624b24d7f0>. Accessed September 26, 2019.
- 389
- 390 14. Maynard DW, Heritage J: Conversation analysis, doctor–patient interaction and medical
- 391 communication. *Med Educ* 2005; 39:428-435.
- 392

15. Schegloff EA, Jefferson G, Sacks H: The Preference for Self-Correction in the Organization of Repair in Conversation. *Language* 1977;53(2), pp 361-382.
16. Hoey EM, Kendrick KH: *Conversation Analysis, Research Methods in Psycholinguistics: A Practical Guide*. Edited by de Groot AMB, Hagoort P. Wiley Blackwell, 2017, pp 151-173.
17. Wu RJR: Repetition in the initiation of repair, *Conversation Analysis: Comparative Perspectives*. Edited by Sidnell J. Cambridge University Press, 2009, pp 31-59.
18. Robinson JD: Soliciting patients' presenting concerns, *Communication in Medical Care: Interactions between Primary Care Physicians and Patients*. Edited by Heritage J, Maynard DW. Cambridge, Cambridge University Press, 2005, pp 22-47.
19. Baile WF, Buckman R, Lenzi R, Glober G, Beale EA, Kudelka AP: SPIKES—A Six-Step Protocol for Delivering Bad News: Application to the Patient with Cancer. *The Oncologist* 2000; 5(4):302-311.
20. Pilnick A, Trusson D, Beeke S, O'Brien R, Goldberg S, Harwood RH: Using conversation analysis to inform role play and simulated interaction in communications skills training for healthcare professionals: identifying avenues for further development through a scoping review. *BMC Med Educ* 2018; 18(1):267.
21. de la Croix A, Skelton J: The simulation game: an analysis of interactions between students and simulated patients. *Medical Education* 2013; 47:49-58.

418

419 22. Pomerantz AM, Ende J, Erickson F: Precepting conversations in a general medicine
420 clinic, *The Talk of the Clinic*. Edited by Morris GH, Chenail RJ. Hillsdale, New Jersey:
421 Lawrence Erlbaum 1995, pp 151-69.

422

423 **Funding**

424 This project has been financially supported by the Academy of Finland, Tampere University
425 and the Rice University Humanities Research Center.

426

427 **Acknowledgements**

428 The authors wish to thank the McGovern Medical School faculty, staff and students involved
429 in the Breaking Bad News teaching, especially Dr. Eugene Boisaubin, Dr. Thomas R. Cole,
430 Dr. Mark Farnie, Dr. Jenn Swails, Dr. Laura Coletti and coordinator Venettea Mitchell. Warm
431 thanks to the director Marcy Hamburger and her team in the Standardized Patients program
432 in the Surgical & Clinical Skills Center. The authors are grateful to Dr. Rebecca Lunstroth for
433 her assistance with the IRB protocol.

434

435 **Ethics**

436 The Committee for the Protection of Human Subjects in the University of Texas Health Science
437 Center at Houston has approved this study. IRB number: HSC-MS-18-0083.